

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 10,846.

Date of writing Report 7 JAN. 1942, When handed in at Local Office KEIGHLEY to Port of MANCHESTER Received at London Office 13 JAN 1942 24 JUN 1942

No. in Survey held at Reg. Book. 1 on the Single Twin Triple Quadruple Screw vessel M/V. "RN. AIR 2 A." Date, First Survey 23<sup>rd</sup> SEPT 1941 Last Survey 2. JAN 1942 Number of Visits 4

Built at NORTHWICH. By whom built W. J. ARWOOD & SONS (1938) LTD. Yard No. 668 When built 1941 Owners Port belonging to

Oil Engines made at KEIGHLEY. By whom made H. WIDDOP & CO LTD. ENGINE Contract No. 4117 When made 1941 Generators made at BELFAST. By whom made H. J. SCOTT & CO LTD. GENERATOR Contract No. 39945 When made 1941

No. of Sets ONE. Engine Brake Horse Power 1. Nom. Horse Power as per Rule 2. Total Capacity of Generators 3.5 Kilowatts.

TYPE OF ENGINES, &c. Type of Engines VERTICAL SOLID INJECTION. 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 100 LBS. Diameter of cylinders 4" Length of stroke 4" No. of cylinders ONE No. of cranks ONE

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 5.125" Is there a bearing between each crank -

Revolutions per minute 1400. Flywheel dia. 18" Weight 1.1 cwt. Means of ignition COMPRESSION Kind of fuel used HEAVY OIL.

Crank Shaft, dia. of journals as per Rule APPROVED. 2.25" Crank pin dia. 2.25" Crank Webs Mid. length breadth 3" Thickness parallel to axis SOLID. Mid. length thickness 1.25" Thickness around eye-hole SOLID.

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 5/16"

Is there a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of lubrication FORCED.

Are the cylinders fitted with safety valves NO Are the exhaust pipes and silencers water cooled or lagged with non-conducting material -

Boiling Water Pumps, No. ONE. Is the sea suction provided with an efficient strainer which can be cleared within the vessel -

Lubricating Oil Pumps, No. and size ONE, 2/8" DIA. x 1/4" STROKE.

Air Compressors, No. ONE. No. of stages ONE. Diameters 4.5" Stroke 2.75" Driven by AUX. ENGINE.

Exhausting Air Pumps, No. - Diameter - Stroke - Driven by -

AIR RECEIVERS: Have they been made under Survey - State No. of Report or Certificate -

Each receiver, which can be isolated, fitted with a safety valve as per Rule -

Are the internal surfaces of the receivers be examined - What means are provided for cleaning their inner surfaces -

Is there a drain arrangement fitted at the lowest part of each receiver -

High Pressure Air Receivers, No. - Cubic capacity of each - Internal diameter - thickness -

Low Pressure Air Receivers, No. - Total cubic capacity - Internal diameter - thickness -

Electric Generators: Type - Voltage of supply 220. volts. Full Load Current 15.8. Amperes. Direct or Alternating Current DIRECT

Are the generators, are they compounded as per rule YES. Has the Automatic Governor been tested and found as per rule when full load is suddenly thrown on and off YES

Are all terminals accessible, clearly marked, and furnished with sockets - is an adjustable regulating resistance fitted in series with each field -

Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched - Are the lubricating arrangements of the generators as per Rule YES.

Are generators under 100 kw. full load rating, have the Makers supplied certificates of test - and do the results comply with the requirements -

Are generators 100 kw. or over have they been built and tested under survey -

Are approved plans forwarded herewith for Shafting 13-11-1941 Receivers - Separate Tanks -

RED GEAR AS PER RULE REQUIREMENTS.

*Handwritten initials and date: J.F. 20/1/42*

The foregoing is a correct description,

For M. WIDDOP & COMPANY LTD.

*Handwritten signature: J. Machead*

*Handwritten signature: H. Widdop*



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Dates of Survey while building: During progress of work in shops - - - 1941. SEPT. 23. OCT. 9. DEC 26. 1942 JAN 5.  
 During erection on board vessel - - - H.  
 Total No. of visits H.

Dates of Examination of principal parts - Cylinders 23.9.41. Covers 9.10.41. Pistons 23.9.41. Piston rods -  
 Connecting rods 23.9.41. Crank and Flywheel shafts 23.9.41. Intermediate shafts -  
 Crank and Flywheel shafts, Material OH. INSPOT STEEL. Identification Marks LLOYDS. 15 NFM. 1-3-40  
 Intermediate shafts, Material - Identification Marks -  
 Identification marks on Air Receivers -

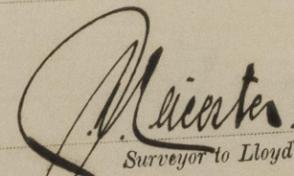
Is this machinery duplicate of a previous case - /Es ✓ If so, state name of vessel J. POLLACK & SONS. M94. MCH RPT. 10815

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
 THIS ENGINE HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE OF A GOOD QUALITY AND THE ENGINE WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS SHOWED SATISFACTORY RESULTS. IN MY OPINION THIS ENGINE IS SUITABLE TO BE PLACED ON BOARD A VESSEL, CLASSED WITH THIS SOCIETY, FOR THE PURPOSE INTENDED.

Im. 438. - Transfer, (MADE AND PRINTED IN ENGLAND)  
 (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... .. £ : :  
 Travelling Expenses (if any) £ ✓ : :

When applied for M.  
 When received, ✓

  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 23 JUN 1942  
 Assigned See Minute on Liverpool I.E. Machinery Rpt.